



## Indiana Department of Environmental Management

*We Protect Hoosiers and Our Environment.*

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**Eric J. Holcomb**  
*Governor*

**Bruno Pigott**  
*Commissioner*

June 02, 2017

Via Email to: [jehanning@uss.com](mailto:jehanning@uss.com)  
Mr. Joe Hanning, Manager of Environmental Control  
U.S. Steel Corporation, Midwest Plant  
One North Broadway, MS 70-A  
Gary, Indiana 46402

Dear Mr. Hanning:

**Re: Inspection Summary/ Enforcement Referral**  
US Steel Midwest  
NPDES Permit No. IN0000337  
Portage, Porter County

An inspection of the above-referenced facility or location was conducted by a representative of the Indiana Department of Environmental Management, Northwest Regional Office, pursuant to IC 13-18-3-9. A summary of the inspection is provided below:

Date(s) of Inspection: April 20, 2017  
Type of Inspection: Reconnaissance Inspection  
Inspection Results: Violations were observed and will be referred to the Enforcement Section.

The following concerns were noted:

1. Part I. B. of the permit prohibits the discharge from any point sources specified within the permit from causing receiving waters, including the mixing zone, to contain substances, materials, floating debris, oil, or scum: (1) that will settle to form putrescent or otherwise objectionable deposits; (2) that are in amounts sufficient to be unsightly or deleterious; (3) that produce color, visible oil sheen, odor, or other conditions in such degree as to create nuisance; (4) which are in amounts sufficient to be acutely toxic to, or to otherwise severely injure or kill aquatic life, other animals, plants, or humans; (5) which are in concentrations or combinations that will cause or contribute to the growth of aquatic plants or algae to such a degree as to create a nuisance, be unsightly, or otherwise impair the designated uses. Effluent Appearance was rated as unsatisfactory due to a bluish-green color from the hexavalent chromium release on April 11, 2017 (Photo Attached) as observed by David Greinke - IDEM - Emergency Response. On April 20, 2017, the outfalls observed appeared clear and odorless.

- 2 Permit was rated as unsatisfactory. 327 IAC 5-2-2 states, in part, that any discharge of pollutants into waters of the state as a point source discharge is prohibited unless in conformity with a valid NPDES permit obtained prior to the discharge. IC 13-30-2-1 states, in part, that a person may not discharge, emit, cause, allow, or threaten to discharge, emit, cause, or allow any contaminant or waste, including any noxious odor, either alone or in combination with contaminants from other sources into the environment in any form that causes or would cause pollution that violates or would violate rules, standards, or discharge or emission requirements adopted by the board under the environmental management laws; or increase the quantity or strength of a discharge of contaminants into the waters or construct or install a sewer or sewage treatment facility or a new outlet for contaminants into the waters of Indiana without prior approval of the department. While U.S. Steel - Midwest holds a valid NPDES permit for discharges into Burns Waterway, the permit requires the chrome waste to be treated in the chrome treatment facility. The waste stream route created by the equipment failure was not a permitted activity.
3. Operation and Maintenance were rated as unsatisfactory. Part II. B. 1. of the permit requires that all facilities and systems (and related appurtenances) for collection and treatment which are installed or used by the permittee and which are necessary for achieving compliance with the terms and conditions of the permit in accordance with 327 IAC 5-2-8(8) must be maintained in good working order and efficiently operated at all times.

On April 11th, 2017, US Steel personnel detected discoloration in the process wastewater treatment system, which discharges to the Burns Waterway via Outfall 004. Upon further inspection of the cause, it was determined by US Steel personnel that the line that carried chrome waste to the chrome waste treatment facility had failed, possibly due to the corrosive material. The waste followed a trench, which altered the waste flow to the process waste facility, which was not designed to treat chrome. US Steel alerted the National Response Center once it realized it was likely excessive chromium levels were discharging out of Outfall 004 into Burns Waterway. Photos (See Attached) taken by David Greinke - IDEM - Emergency Response on April 11, 2017 indicate a bluish-green tint to the water exiting Outfall 004.

The EPA began emergency response procedures at that time. The facility ceased production on April 11, 2017. Nearby beaches and the Indiana American Ogden Dunes drinking water intake were closed as a preventative measure. It was estimated by US Steel that approximately 350 pounds of total chromium and 300 pounds of hexavalent chromium were released in the first two days after the incident.

The facility re-started operations in stages beginning on April 14, 2017. On April 17, 2017, the nearby beaches began opening and on April 18, 2017, the Indiana American water intake opened as the results of follow-up testing for total and hexavalent chromium were below the limit of detection for several consecutive days.

An inspection of the maintenance activities indicated that, while maintenance is being conducted, a proactive scheduling of maintenance activities and reports regarding maintenance activities are not consistently occurring.

4. Flow Measurement was rated as marginal due to potential minor obstructions in the channels for Outfalls 001 and 002. These channels should be inspected and corrected if needed.
5. Effluent Limits Compliance was rated as unsatisfactory. A review of the results of laboratory analysis for sampling conducted in response to the April release indicated the facility had, as of the time of the inspection, two hexavalent chromium and two total chromium daily maximum limit exceedences for April 2017. A later review of the DMR and MMR for April 2017 was conducted. Additional exceedences of one monthly average hexavalent chromium and one monthly average total chromium also occurred and were reported.
6. Other: Spill Notification was rated as unsatisfactory. 327 IAC 2-6.1-7(5) states, in part, that any person who operates, controls, or maintains any mode of transportation or facility from which a spill occurs shall, upon discovery of a reportable spill to the soil or surface waters of the state, exercise due diligence and document attempts to notify the nearest affected downstream water user located within ten (10) miles of the spill and in the state of Indiana for spills to surface water that cause damage. It was found that an initial spill notification was made by US Steel personnel to IDEM and other agencies, however, downstream users were notified by David Greinke with IDEM - Emergency Response, rather than US Steel personnel.

This matter is being referred to the OWQ Enforcement Section for appropriate action. If formal action is initiated, you will be issued a Notice of Violation informing you of how to proceed in resolving this matter. Please direct any questions to Nicholas Ream at 219-730-1691 or by email to [nream@idem.IN.gov](mailto:nream@idem.IN.gov). A copy of the NPDES Industrial Facility Inspection Report is enclosed for your records.

Sincerely,



Rick Massoels, Deputy Director  
Northwest Regional Office

Enclosure



# NPDES Industrial Facility Inspection Report

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

NPDES Permit Number: <b>IN0000337</b>		Facility Type: Industrial		Facility Classification: Major		Facility Classification: D		TEMPO AI ID 14435	
Date(s) of Inspection: April 20, 2017									
Type of Inspection: Reconnaissance Inspection									
Name and Location of Facility Inspected: <b>US Steel Midwest</b> 6300 US Highway 12 Portage					Receiving Waters/POTW: Portage Burns Waterway to Lake Michigan			Permit Expiration Date: 3/31/2021	
County: Porter								Design Flow: NA	
On Site Representative(s):									
First Name		Last Name		Title		Email		Phone	
Mark		Henry		Environmental Coordinator		mhenry@uss.com		219-763-5869	
Brandon		Miller		Environmental Coordinator		bsmiller@uss.com		219-888-3369	
Joe		Hanning		Manager of Environmental Control		jehanning@uss.com			
Was a verbal summary of the inspection given to the on-site rep? <b>Yes</b>									
Certified Operator: Mark Henry		Number: 20376	Class: D	Effective Date: 7-1-16	Expiration Date: 6-30-18	Email: mhenry@uss.com			
Responsible Official: Mr. Joe Hanning, Manager of Environmental Control One North Broadway, MS 70-A Gary, Indiana 46402					Permittee: U.S. Steel Corporation, Midwest Plant				
					Email: jehanning@uss.com				
					Phone:			Contacted?	
					Fax:			Yes	
<b>INSPECTION FINDINGS</b>									
<input type="radio"/> Conditions evaluated were found to be satisfactory at the time of the inspection. (5) <input type="radio"/> Violations were discovered but corrected during the inspection. (4) <input type="radio"/> Potential problems were discovered or observed. (3) <input type="radio"/> Violations were discovered and require a submittal from you and/or a follow-up inspection by IDEM. (2) <input checked="" type="radio"/> Violations were discovered and may subject you to an appropriate enforcement response. (1)									
<b>AREAS EVALUATED DURING INSPECTION</b>									
(S = Satisfactory, M = Marginal, U = Unsatisfactory, N = Not Evaluated)									
S	Receiving Waters	S	Facility/Site	N	Self-Monitoring	N	Compliance Schedules		
U	Effluent/Discharge	U	Operation	M	Flow Measurement				
U	Permit	U	Maintenance	N	Laboratory	U	Effluent Limits Compliance		
		N	Sludge	N	Records/Reports	U	Other: Spill Notification		
<b>DETAILED AREA EVALUATIONS</b>									
<b>Receiving Waters:</b>									
Comments: The receiving stream was free of notable foam, algae or solids on the day of the inspection.									
<b>Effluent/Discharge:</b>									
Evaluation of Multiple Outfalls:									
Outfall #	Insp. Date	Outfall Inspection Comments							
002	4/20/2017	The effluent appeared clear and colorless on 4/20/17.							
003	4/20/2017	The effluent appeared clear and colorless on 4/20/17.							
004	4/20/2017	The effluent appeared clear and colorless on 4/20/17.							

104	4/20/2017	The effluent appeared clear and colorless on 4/20/17.
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Comments:

Part I. B. of the permit prohibits the discharge from any point sources specified within the permit from causing receiving waters, including the mixing zone, to contain substances, materials, floating debris, oil, or scum: (1) that will settle to form putrescent or otherwise objectionable deposits; (2) that are in amounts sufficient to be unsightly or deleterious; (3) that produce color, visible oil sheen, odor, or other conditions in such degree as to create nuisance; (4) which are in amounts sufficient to be acutely toxic to, or to otherwise severely injure or kill aquatic life, other animals, plants, or humans; (5) which are in concentrations or combinations that will cause or contribute to the growth of aquatic plants or algae to such a degree as to create a nuisance, be unsightly, or otherwise impair the designated uses. Effluent Appearance was rated as unsatisfactory due to a bluish-green color from the hexavalent chromium release on April 11, 2017 (Photo Attached) as observed by David Greinke - IDEM - Emergency Response. On April 20, 2017, the outfalls observed appeared clear and odorless.

**Permit:**

Comments:

Permit was rated as unsatisfactory. 327 IAC 5-2-2 states, in part, that any discharge of pollutants into waters of the state as a point source discharge is prohibited unless in conformity with a valid NPDES permit obtained prior to the discharge. IC 13-30-2-1 states, in part, that a person may not discharge, emit, cause, allow, or threaten to discharge, emit, cause, or allow any contaminant or waste, including any noxious odor, either alone or in combination with contaminants from other sources into the environment in any form that causes or would cause pollution that violates or would violate rules, standards, or discharge or emission requirements adopted by the board under the environmental management laws; or increase the quantity or strength of a discharge of contaminants into the waters or construct or install a sewer or sewage treatment facility or a new outlet for contaminants into the waters of Indiana without prior approval of the department. While U.S. Steel - Midwest holds a valid NPDES permit for discharges into Burns Waterway, the permit requires the chrome waste to be treated in the chrome treatment facility. The waste stream route created by the equipment failure was not a permitted activity.

**Facility/Site:**

Comments:

The facility grounds were well maintained.

**Operation:**

Comments:

Operation was rated as unsatisfactory. Please refer to Maintenance

**Maintenance:**

Comments:

Part II. B. 1. of the permit requires that all facilities and systems (and related appurtenances) for collection and treatment which are installed or used by the permittee and which are necessary for achieving compliance with the terms and conditions of the permit in accordance with 327 IAC 5-2-8(8) must be maintained in good working order and efficiently operated at all times.

On April 11th, 2017, US Steel personnel detected discoloration in the process wastewater treatment system, which discharges to the Burns Waterway via Outfall 004. Upon further inspection of the cause, it was determined by US Steel personnel that the line that carried chrome waste to the chrome waste treatment facility had failed, possibly due to the corrosive material. The waste followed a trench, which altered the waste flow to the process waste facility, which was not designed to treat chrome. US Steel alerted the National Response Center once it realized it was likely excessive chromium levels were discharging out of Outfall 004 into Burns Waterway. Photos (See Attached) taken by David Greinke - IDEM - Emergency Response on April 11, 2017 indicate a bluish-green tint to the water exiting Outfall 004.

The EPA began emergency response procedures at that time. The facility ceased production on April 11, 2017. Nearby beaches and the Indiana American Ogden Dunes drinking water intake were closed as a preventative measure. It was estimated by US Steel that approximately 350 pounds of total chromium and 300 pounds of hexavalent chromium were released in the first two days after the incident.

The facility re-started operations in stages beginning on April 14, 2017. On April 17, 2017, the nearby beaches began opening and on April 18, 2017, the Indiana American water intake opened as the results of follow-up testing for total and hexavalent chromium were below the limit of detection for several consecutive days.

An inspection of the maintenance activities indicated that, while maintenance is being conducted, a proactive scheduling of maintenance activities and reports regarding maintenance activities are not consistently occurring.

**Flow Measurement:**

Comments:

Flow Measurement was rated as marginal due to potential minor obstructions in the channels for Outfalls 001 and 002. These channels should be inspected and corrected if needed.

**Effluent Limits Compliance:**

No 1. Were DMRs reviewed as part of the inspection?

Comments:

Effluent Limits Compliance was rated as unsatisfactory. A review of the results of laboratory analysis for sampling conducted in response to the April release indicated the facility had, as of the time of the inspection, two hexavalent chromium and two total chromium daily maximum limit exceedences for April 2017. A later review of the DMR and MMR for April 2017 was conducted. Additional exceedences of one monthly average hexavalent chromium and one monthly average total chromium also occurred and were reported.

**Other:****Spill Notification**

Comments:

Other: Spill Notification was rated as unsatisfactory. 327 IAC 2-6.1-7(5) states, in part, that any person who operates, controls, or maintains any mode of transportation or facility from which a spill occurs shall, upon discovery of a reportable spill to the soil or surface waters of the state, exercise due diligence and document attempts to notify the nearest affected downstream water user located within ten (10) miles of the spill and in the state of Indiana for spills to surface water that cause damage. It was found that an initial spill notification was made by US Steel personnel to IDEM and other agencies, however, downstream users were notified by David Greinke with IDEM - Emergency Response, rather than US Steel personnel.

**IDEM REPRESENTATIVE**

Inspector Name:

Nicholas Ream

Email:

nream@idem.IN.gov

Phone Number:

219-730-1691

Other staff participating in the inspection:

Name(s)

Dean Maraldo - U.S. EPA

Cathy Csatari - IDEM - RCRA

Phone Number(s)

(312) 353-2098

219-464-0233

**IDEM MANAGER REVIEW**

IDEM Manager:

Rick Massoels

Date:

5/4/2017

## Inspection Photographs



Facility: <b>US Steel Midwest</b>
Photographer: David Greinke
Date: 04/11/2017      Time:
Others Present:
Location/Description: Down and west view of Outfall 004 as taken by David Greinke, IDEM-Emergency Response, on 4/11/17.



Facility: <b>US Steel Midwest</b>
Photographer: David Greinke
Date: 04/11/2017      Time:
Others Present:
Location/Description: Down and southwest view of Outfall 004 as taken by David Greinke, IDEM - Emergency Response, on 4/11/17.